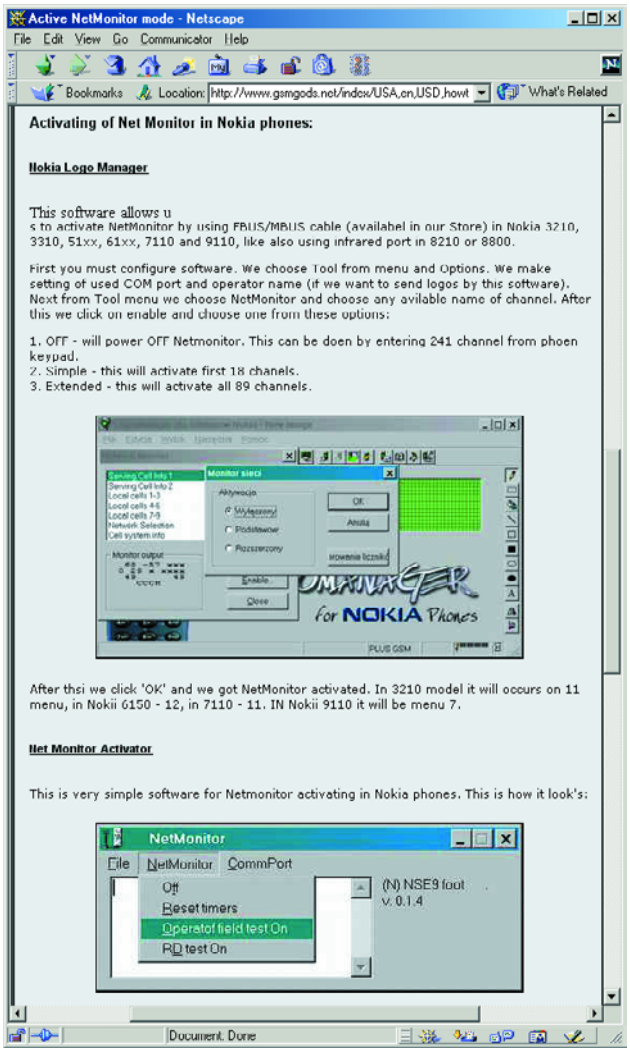
Network Monitor for Nokia GSM Phones

Measure cellular radio fieldstrength

By Harry Baggen, with a contribution by P. Busch

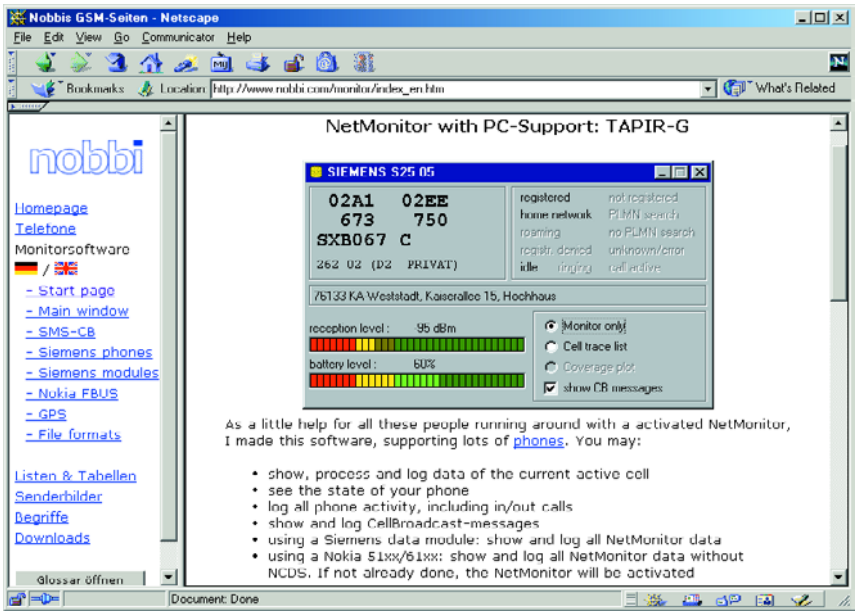
Today's GSM phones have some many bells and whistles that many of us are confused (to say the least) by the plethora of menus and submenus. To add to the confusion, there exists a vast number of auxiliary programs ('tools') for even more options and functions. Among these programs we discovered a few that are of interest to electronics enthusiasts.

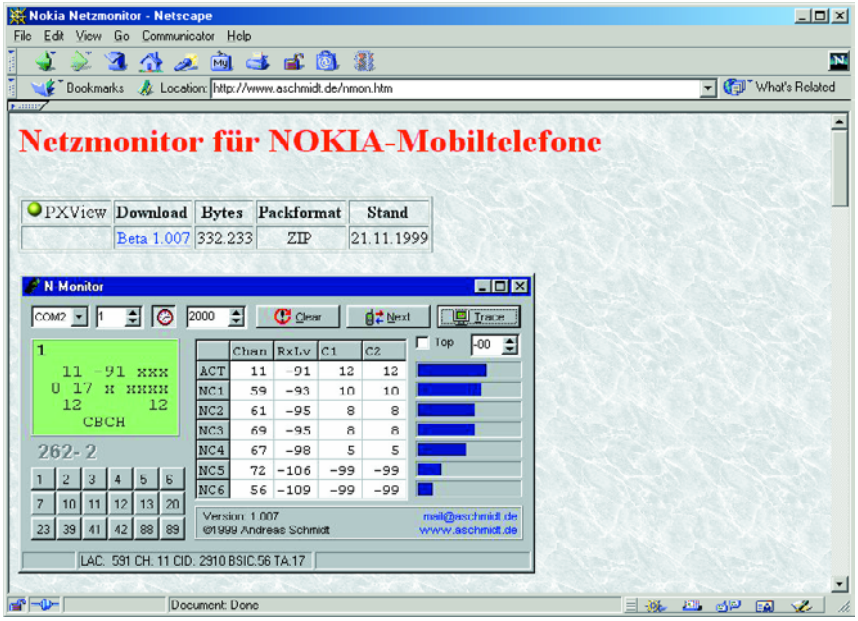


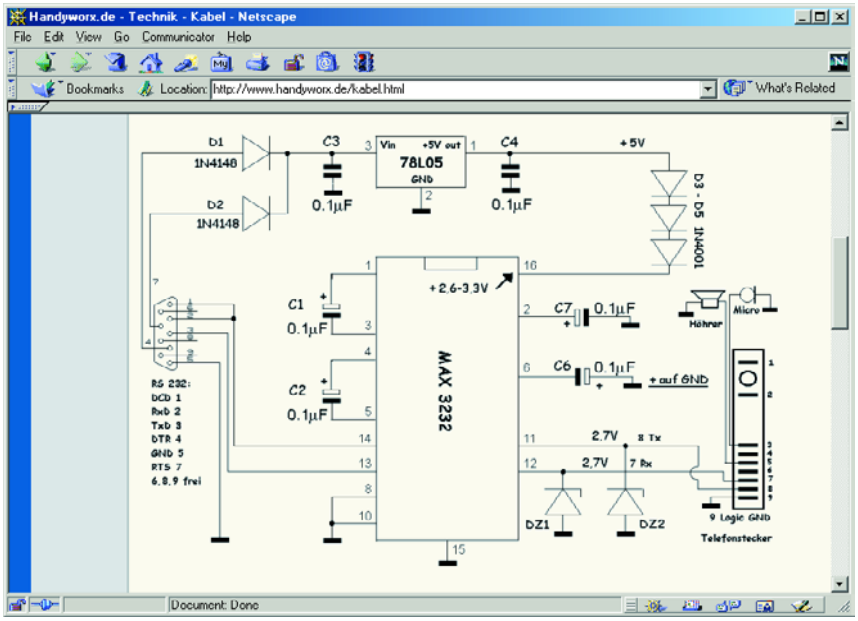
Although there's no shortage of tips and tricks for mobile phones, it must be said that most of these are only useful for fanatic GSM users. And yet, there are tools worth experimenting with or having a look at if you're into electronics. For example, our reader Mr. Busch kindly informed us of the possibility to use a Nokia mobile phone to measure the local fieldstrength of GSM transmitter(s) within receiving range of the phone.

Fieldstrength measurement is one of the functions of the program Netmonitor which is available in Nokia 51xx and 61xx GSM phones. The program 'lies dormant' in the phone and needs to be activated. This requires a serial cable between the phone and the PC, plus a PC program like PC Locals or Logo Manager which allows Netmonitor to be activated. Once that has been done, the menu will show one additional option named Netmonitor. Selecting this menu option and then pressing '01' followed by Enter causes the received fieldstrength in dbμV to be indicated on the display, along with the associated channel number. Subsequent browsing then shows all channels being received, complete with the relevant fieldstrength. All very nice, but Netmonitor can do much more…

On the Internet, Netmonitor is a popular subject among technically inclined GSM phone users. This diagnostic mode, actually provided for service engineers, appears to be present on far more Nokia phones and the number of options is reported to vary between 19 and 133! A similar mode is also said to be available on other GSM phone brands, including Siemens, Motorola







and Ericsson.

If you want to know more about Nokia Netmonitor and how to activate it, it is best to start at the **GSMGods.net** website [1]. These pages explain how to activate the hidden program using the Nokia Logo Manager utility. They also mention the program Net Monitor Activator which has been specifically written for the purpose.

Fortunately, extensive manuals are also available for Netmonitor. After all, some documentation will be required particularly in the mode covering 89 test pages! A condensed version is available on **GSMworld** [2], which also shows the various monitor windows that pop up. A slightly more extensive manual may be found at, among others, the website published by **Marcin Wiacek** [3] as well as at **Nobbis GSM Seiten** [4].

The latter website has more interesting things to offer. For example, it contains **Monitorsoftware** [5] that allows several data (including fieldstrength) of the active cell transmitter to be shown on the PC screen.

Another useful program that works in combination with Netmonitor is called N-Monitor by **Andreas Schmidt** [6]. All data supplied by Netmonitor is neatly arranged and displayed on the PC screen.

As an aside, if you do not yet have a PC link cable for your GSM phone, have a look at **Handyworks.de** [7]. This website not only provides details on Netmonitor and various other software, but also contains a guide to home construction of a data cable for Nokia GSM phones.

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Internet Addresses

[1] GSMGods:
www.gsmgods.net/index/USA,en,USD,howto,subpage_id,active_netmonitor.html

[2] GSMworld.net:
www.gsmworld.net/nokia/netmonitor/net_main.shtml

[3] Marcin Wiacek:
www.mwiacek.com/english/gsm/netmon/faq_net0.htm

[4] Nobbis GSM Seiten:
www.nobbi.com

[5] Nobbis Monitorsoftware:
www.nobbi.com/moni1_nok.htm

[6] Andreas Schmidt:
www.aschmidt.de/nmon.htm

[7] Handyworks.de:
www.handyworx.de/netmonitor.html